

Amendments to the Drawings

The attached sheet of drawings includes changes to FIG. 12B. This sheet which includes FIGS. 12A-12C, replaces the original sheet including FIGS. 12A-12C. In FIG. 12B the lead line from reference number 19 has been corrected so that it points to the fingertip.

Attachments: One Replacement Drawing Sheet

REMARKS

Claims 1, 2, 5 and 6 have been amended. Claim 7 has been canceled without prejudice or disclaimer. New claims 8-9 have been added. Accordingly, claims 1-6 and 8-9 are now pending in this application.

Priority

Applicants appreciate the Examiner's acknowledgment of the claim for priority. Submitted herewith is a certified copy of the corresponding Japanese patent application (JP 2002-249192, filed in Japan on August 28, 2002). An indication that this document has been safely received would be appreciated.

Specification

The Examiner's objections to the Specification have been addressed by the amendments set forth above. Additionally, missing element numbers have been added to the Specification, as set forth above, to address most of the objections to the drawings. Further, it is noted that display panel 8 is also discussed at a number of places in the specification, including pages 11, 16, 18 and 22. No new matter has been added.

Drawings

The remaining objection to the drawings has been addressed by the submission of a replacement drawing sheet including corrected FIG. 12B, as detailed above.

35 U.S.C. §§102 and 103

Claims 5-7 stand rejected under 35 U.S.C. §102(b) as being anticipated by Hahlganss et al. (U.S. Patent No. 6,067,081 - hereafter "Hahlganss"). Claims 1-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Hanajima et al. (U.S. Pub. No. 2002/0008691 - hereafter "Hanajima") in view of Hahlganss et al. These rejections are traversed as follows.

Discussion of the Invention

According to the present invention, two different reference pressure values P_1 and P_2 (where $P_1 < P_2$) are set for determining the present state of touching at the touch operation member on the display screen. One of two different processing operations are carried out in accordance with the present state of touching determined from the detected pushing pressure P . Under claim 1, the first processing is a response to change the display of the touch operation member to be different from the current display. The second processing is to move the display screen in a direction of the pushing pressure caused by the pointer and to execute a

predetermined process assigned to the touch operation member that the pointer is pushing against.

Thus, when the detected pushing pressure P satisfies the relation $P_1 \leq P < P_2$, the first processing is conducted. Then, if the pushing pressure P changes to $P_2 \leq P$, the second processing is conducted. Accordingly, under the invention, a user is able to determine when a desired button has been touched and selected with a first pressure, and then the user also receives a tactile feedback when the screen is pushed more firmly to indicate that the selected button has been activated.

Discussion of Hahlganss

The cited reference to Hahlganss discloses that when a user touches the input surface, vibration is applied to the input surface and the height of the input surface may be changed. The frequency of the vibration or the height of the surface is changed depending on the location at which the input surface is touched. The user is able to recognize the location on the input surface that corresponds to most menu items according to the frequency of the vibration. Further, as described at column 4, lines 17-25, when the switch surface "escape" or "back" is touched, the input surface is shifted in height in the direction towards the input member. Thus, all that is described in Hahlganss is the first processing of the present invention, i.e., that there is a response when a first pressure is applied to the surface of the touch screen at a particular button. Hahlganss does not teach or suggest the second processing of the invention wherein the display screen moves in response to a

second, greater pressure and a predetermined process assigned to the touch operation member that is pushed is carried out.

Discussion of Hanajima

Hanajima discloses that when a sensor detects a weak pressure on a touch panel, an icon is displayed in a high-lighted display mode. Then, when the sensor detects a higher pressure, the application corresponding to the icon is executed. Thus, Hanajima also does not teach the second processing of the invention, i.e., to move the display screen in a direction of pushing pressure and execute a predetermined processing assigned to the touch operation member (the touched location on the input surface). Nor does Hanajima teach or suggest any sort of tactile feedback in response to the second greater pressure.

The Combination of Hahlganss and Hanajima does not Teach the Invention

Neither Hahlganss, nor Hanajima teach the invention set forth in independent claims 1 and 8. Both of these claims include a first processing when the pushing pressure P satisfies the relation $P_1 \leq P < P_2$, and a second processing when $P_2 \leq P$, wherein the touch operation member is regarded as pressed, a function of moving the display screen in a direction of pushing pressure caused by the pointer is executed, and a predetermined processing assigned to the touch operation member is executed by the second processing. Neither Hahlganss, nor Hanajima teach such a tactile feedback to indicate that a selected button has actually been activated.

Hahlganss teaches only a tactile response when choosing a button and Hanajima teaches only visual feedback for selecting a button. Neither of these references teach or suggest moving the display screen in the direction of pressing a touch operation member to indicate that the member is treated as pressed. Accordingly, claims 1 and 8 are patentable over the art of record.

Further, the subject matter of the dependent claims is independently patentable. For instance, the prior art does not teach or suggest moving the display screen during both the first and second processing, as set forth in claim 2. Nor does the prior art teach or suggest moving the display screen at a different travel quantity or rate of change of from one processing over the other, as set forth in claim 3. Nor does the prior art teach or suggest moving the display screen in one direction for the first processing and a second direction for the second processing, as set forth in claim 4. The other dependent claims teach additional patentable limitations of the invention, and are similarly patentable. Accordingly, all of dependent claims 2-6 and 9 are also patentable over the art of record, whether taken singly or in combination.

Conclusion

In view of the foregoing, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Col D Barnitz", written in a cursive style.

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